

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Please amend claims 1, 4, 5, 12, 13, 16, 20, 22 and cancel claim 21. No new matter is believed to be introduced as a result of the foregoing amendments. This listing of claims will replace all prior versions, and listings, of claims in the application:

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1. (Currently Amended) A brush suitable for use in facilitating cleaning of a passageway defined by a medical device, the brush comprising:

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- (a) an atraumatic tip having proximal and distal ends;
  - (b) a fill wire having proximal and distal ends and including a fill section, said distal end of said fill wire being connected to said proximal end of said atraumatic tip;
  - (c) a shaft having proximal and distal ends, said distal end of said shaft being connected to said proximal end of said fill wire;
  - (d) a[[n]] permanent inner sheath covering a portion of said fill wire;  
and
  - (e) an outer sheath covering at least said inner sheath and a portion of said shaft.

2. (Original) The brush as recited in claim 1, wherein said fill wire comprises a plurality of braided wires.

3. (Original) The brush as recited in claim 1, further comprising a bulb disposed about a portion of said atraumatic tip

4. (Currently Amended) ~~The brush as recited in claim 1, further comprising~~  
A brush suitable for use in facilitating cleaning of a passageway defined by a medical device, the brush comprising:

- (a) an atraumatic tip having proximal and distal ends;
- (b) a fill wire having proximal and distal ends and including a fill section, said distal end of said fill wire being connected to said proximal end of said atraumatic tip;
- (c) a shaft having proximal and distal ends, said distal end of said shaft being connected to said proximal end of said fill wire;
- (d) an inner sheath covering a portion of said fill wire;
- (e) an outer sheath covering at least said inner sheath and a portion of said shaft; and
- (f) proximal and distal connector sleeves, at least a portion of said proximal end of said fill wire and at least a portion of said distal end of said shaft being received and retained in said proximal connector sleeve, and at least a portion of said distal end of said fill wire and at least a portion of said proximal end of said atraumatic tip being received and retained in said distal connector sleeve.

5. (Currently Amended) The brush as recited in claim 4 [[1]], wherein at least said shaft is substantially composed of a memory alloy.

6. (Original) The brush as recited in claim 5, wherein said memory alloy comprises a nickel-titanium alloy.

7. (Currently Amended) The brush as recited in claim 4 [[1]], wherein said atraumatic tip comprises a core wire and a coil, said coil being disposed about said core wire and bonded thereto.

A3 8. (Original) The brush as recited in claim 7, wherein at least said coil is substantially composed of a radio-opaque material.

9. (Original) The brush as recited in claim 8, wherein said coil comprises gold-plated tungsten.

10. (Original) The brush as recited in claim 7, wherein said core wire is substantially composed of a memory alloy.

11. (Original) The brush as recited in claim 10, wherein said memory alloy comprises a nickel-titanium alloy.

12. (Currently Amended) A brush suitable for use in facilitating cleaning of a passageway defined by a medical device, the brush comprising:

- (a) a shaft;
- (b) means for transmitting a cleaning force exerted upon said shaft; ~~and~~
- (c) an outer sheath covering at least a portion of said shaft[.]; and
- (d) a permanent inner sheath covering at least a portion of a fill wire.

13. (Currently Amended) The brush as recited in claim 12, wherein said means for transmitting a cleaning force comprises [[a]] said fill wire joined to said shaft, and an atraumatic tip joined to said fill wire.

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✓ 14. (Original) The brush as recited in claim 13, further comprising an inner sheath covering a portion of said fill wire.

15. (Original) The brush as recited in claim 12, wherein at least said shaft is substantially composed of NiTiNOL.

16. (Currently Amended) A system suitable for use in conjunction with performance of medical procedures, the system comprising:

- (a) a medical device defining at least one passageway; and
- (b) a brush configured to be at least partially received within said at least one passageway defined by said medical device, said brush comprising:
  - (i) an atraumatic tip having proximal and distal ends;

- (ii) a fill wire having proximal and distal ends and including a fill section, said distal end of said fill wire being connected to said proximal end of said atraumatic tip;
- (iii) a shaft having proximal and distal ends, said distal end of said shaft being connected to said proximal end of said fill wire;
- (iv) a[[n]] permanent inner sheath covering a portion of said fill wire;
- and
- (v) an outer sheath covering at least said inner sheath and a portion of said shaft.

A 3 17. (Original) The system as recited in claim 16, wherein said medical device is selected from the group consisting of: hemodialysis tubes, catheters, feeding tubes, parenteral nutrition tubes, gastric catheters, drainage tubes, and venous lines.

18. (Original) The system as recited in claim 16, wherein said fill wire comprises a plurality of braided wires.

19. (Original) The system as recited in claim 16, wherein at least said shaft is substantially composed of a memory alloy.

20. (Currently Amended) ~~The system as recited in claim 16, further comprising~~ A system suitable for use in conjunction with performance of medical procedures, the system comprising:

(a) a medical device defining at least one passageway; and

(b) a brush configured to be at least partially received within said at least one passageway defined by said medical device, said brush comprising:

- (i) an atraumatic tip having proximal and distal ends;
- (ii) a fill wire having proximal and distal ends and including a fill section, said distal end of said fill wire being connected to said proximal end of said atraumatic tip;
- (iii) a shaft having proximal and distal ends, said distal end of said shaft being connected to said proximal end of said fill wire;
- (iv) an inner sheath covering a portion of said fill wire; and
- (v) an outer sheath covering at least said inner sheath and a portion of said shaft; and
- (vi) proximal and distal connector sleeves, at least a portion of said proximal end of said fill wire and at least a portion of said distal end of said shaft being received and retained in said proximal connector sleeve, and at least a portion of said distal end of said fill wire and at least a portion of said proximal end of said atraumatic tip being received and retained in said distal connector sleeve.

21. (Cancelled)

22. (Currently Amended) ~~The system as recited in claim 16,~~ A system suitable for use in conjunction with performance of medical procedures, the system comprising:

(a) a medical device defining at least one passageway; and

(b) a brush configured to be at least partially received within said at least one passageway defined by said medical device, said brush comprising:

(i) an atraumatic tip having proximal and distal ends, wherein said atraumatic tip comprises a core wire and a coil, said coil being disposed about said core wire and bonded thereto;

(ii) a fill wire having proximal and distal ends and including a fill section, said distal end of said fill wire being connected to said proximal end of said atraumatic tip;

(iii) a shaft having proximal and distal ends, said distal end of said shaft being connected to said proximal end of said fill wire;

(iv) an inner sheath covering a portion of said fill wire; and

(v) an outer sheath covering at least said inner sheath and a portion of said shaft.

23. (Original) The system as recited in claim 22, wherein at least said core wire is substantially composed of a memory alloy.

24. (Original) The system as recited in claim 22, wherein at least said coil is substantially composed of a radio-opaque material.

25. (Original) A brush suitable for use in facilitating cleaning of a passageway defined by a medical device, the brush comprising:

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- (a) an atraumatic tip having proximal and distal ends and including a core wire and coil, said coil being disposed about said core wire and bonded thereto, and said traumatic tip including a bulb disposed about said distal end;
  - (b) a fill wire comprising a plurality of braided wires and having proximal and distal ends, and said fill wire including a fill section;
  - (c) a distal connector sleeve, at least a portion of said distal end of said fill wire and at least a portion of said proximal end of said atraumatic tip being received and retained in said distal connector sleeve, and said distal connector sleeve being bonded to said coil;
  - (d) a shaft having proximal and distal ends;
  - (e) a proximal connector sleeve, at least a portion of said proximal end of said fill wire and at least a portion of said distal end of said shaft being received and retained in said proximal connector sleeve;
  - (f) an inner sheath covering a portion of said fill wire; and
  - (g) an outer sheath covering at least said inner sheath, said proximal connector sleeve, and a portion of said shaft.

26. (Original) The brush as recited in claim 25, wherein at least said coil is substantially composed of gold-plated tungsten.

27. (Original) The brush as recited in claim 25, wherein at least said core wire is substantially composed of NiTiNOL.



28. (Original) The brush as recited in claim 25, wherein at least said shaft is substantially composed of NiTiNOL.

29. (Original) The brush as recited in claim 25, wherein said plurality of braided wires is substantially composed of stainless steel.

30. (Original) The brush as recited in claim 25, wherein said proximal and distal connector sleeves are substantially composed of stainless steel.

31. (Original) The brush as recited in claim 25, wherein said bulb is substantially composed of epoxy.

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32. (Original) The brush as recited in claim 25, wherein at least said inner sheath is substantially composed of polytetrafluoroethylene.

33. (Original) The brush as recited in claim 25, wherein at least said outer sheath is substantially composed of polytetrafluoroethylene.

34. (Original) The brush as recited in claim 25, wherein said core wire is tapered.

35. (Original) The brush as recited in claim 25, wherein said fill section is tapered.